du Treil, Lundin & Rackley, Inc.
A Subsidiary of A.D. Ring, P.A.

COMMENTS OF
DU TREIL, LUNDIN & RACKLEY, INC.
IN MM DOCKET NO. 94-131

du Treil, Lundin & Rackley, Inc. (dLR) is a consulting engineering firm based in Sarasota, Florida. We have over 50 years of experience in consulting engineering and we have been active in the wireless cable industry since its inception. dLR submits these comments concerning the *Notice of Proposed Rule Making*, MM Docket No. 94-131, Released: December 1, 1994.

It is dLR's belief that the Commission should take this opportunity to reconfigure the wireless cable service so that it can develop into a viable competitive service. We propose quite a different approach to the filing procedure proposed by the Commission. We hope will the Commission will carefully consider these proposals given the difficulty it has had in the past trying to improve the wireless cable service.

Alternative Filing Procedure

It is our opinion that the FCC cannot proceed with a filing scheme that essentially ignores the existence of

hundreds or thousands of licensed or proposed MDS facilities. The country is blanketed with MDS facilities with most MDS channels licensed or applied-for in the major markets. The attached Figure 1 is a map of a selected region of the south showing the transmitter sites of all E- and F-Group existing and proposed facilities. Also depicted on the map are 50-mile circles from the licensed or tentative selectee sites. The 50-mile circles from the F-Group licensees are shown with a solid line, and the E-Group with a dashed line. Figure 1 demonstrates that a large portion of the country is already precluded by licensed facilities. Therefore, we suggest an alternative plan more closely tailored for the wireless cable service as it now exists.

We propose that the Commission develop a comprehensive allotment plan for the entire country including territories. Such a plan could be developed taking into account the licensed users of band. As an example, we have developed an allotment plan for South Carolina. For example, we would propose wireless cable allotments in the following communities: Greenville, SC; Charlotte, NC; Columbia; Florence; Augusta, GA; Hampton; Savannah, GA; Charleston; Georgetown; and Myrtle Beach. Figure 2 illustrates the allotment plan with 50-mile circles drawn around the allocation reference site. The transmitter sites of existing or proposed stations are shown, with a diamond symbol for E-Group; circle for F-Group; and star for H-Group. This demonstrates the way an allotment plan could

be developed. In this way, the FCC could offer those vacant channel(s) in an allotted-market for short-form applications. Where more than one application is filed, the channels could then go to auction.

Therefore, we suggest that the Commission issue a second notice of proposed rule making whereby it would offer is proposed initial allotment plan. Once the initial allotment plan is adopted the Commission could then open a nationwide filing window for a set of listed vacant channels in the allotted markets. For example, it appears that the F-Group channels are available in Myrtle Beach, Charlotte and Florence. The Commission would put out list of these and all other vacant channels and solicit short-form applications. This would provide the most efficient and orderly procedure for the distribution of the remaining channels.

The FCC will have to work-out conflict resolution procedures. For example, there is a case in the Battle Creek and Kalamazoo, Michigan area that demonstrates the advantage of the allotment method. Figure 3 herein is a map illustrating the Kalamazoo and Battle Creek MSA's. Also shown on the map are the two licensed F-Group stations for the Kalamazoo MSA and the Battle Creek MSA. The licenses of these two stations are included for reference as Figures 4 and 5. The Kalamazoo station is WMH652 and the Battle Creek station is WLK260. These stations resulted from 1983 MDS filings for MSA's. The transmitter sites of these two

stations are less than 10 miles apart. The stations are obviously incompatible and will cause substantial interference to one another over a large sector of the respective service areas. Yet the FCC granted these two separate licenses because they were for separate MSA's. We believe that this is not an isolated situation. This demonstrates that the MSA definition is not a good approach to the application filing procedure. The ADI method the FCC mentioned suffers from similar and other potential problems.

dLR suggests that under the allotment plan described above this situation could be avoided in the future. Under the allotment plan, the FCC would make a single wireless cable allotment to the Kalamazoo-Battle Creek market. The existing four F-Group channels could possibly be fit into this plan by splitting the four channels and giving two F-Group channels to each.

In any case, unfortunately, the wireless cable service just does not lend itself very well to being carved-up the way the cellular services or personal communications services (PCS) could. Particularly since there are so many incumbents on the channels.

Other Suggestions

The allotment scheme proposed herein is based on the assumption of a 50-mile separation "rule-of-thumb." This means that the 50-mile separation is not hard and fast,

but a way of initially developing a plan. The 50-mile separation works very well for smooth or average terrain where the transmitting antenna does not exceed roughly 500-feet above ground level (or average terrain). This is because the distance to the horizon for this antenna height is roughly 40 miles. Therefore, there is limited potential for interference to other stations which would be largely beyond the electrical horizon. In mountainous areas, the allotment plan would have to consider the blocking effects of mountains depending on the location of the transmitter site. The Commission should develop a plan with a minimum guaranteed facility for each allotment notwithstanding interference that might occur to other stations. For example, the minimum guaranteed facility might be and effective isotropic radiated power not to exceed 23 dBW (200 watts) and an antenna height above terrain not to exceed 500 feet in any direction. Thus, an auction bidder could be confident of at least these minimum facilities not withstanding interference to any existing facilities. Also, the FCC would condition the authorization on the implementation of a frequency offset and polarization plan to minimize any interference. However, no increase in these minimum facilities would be possible unless the applicant could demonstrate that there would be no increase in interference to any nearby co-channel users.

It is believed that this type of approach is the most realistic in the FCC's attempts to re-organize the wireless cable service into a viable service.

Louis Robert du Treil, Jr.

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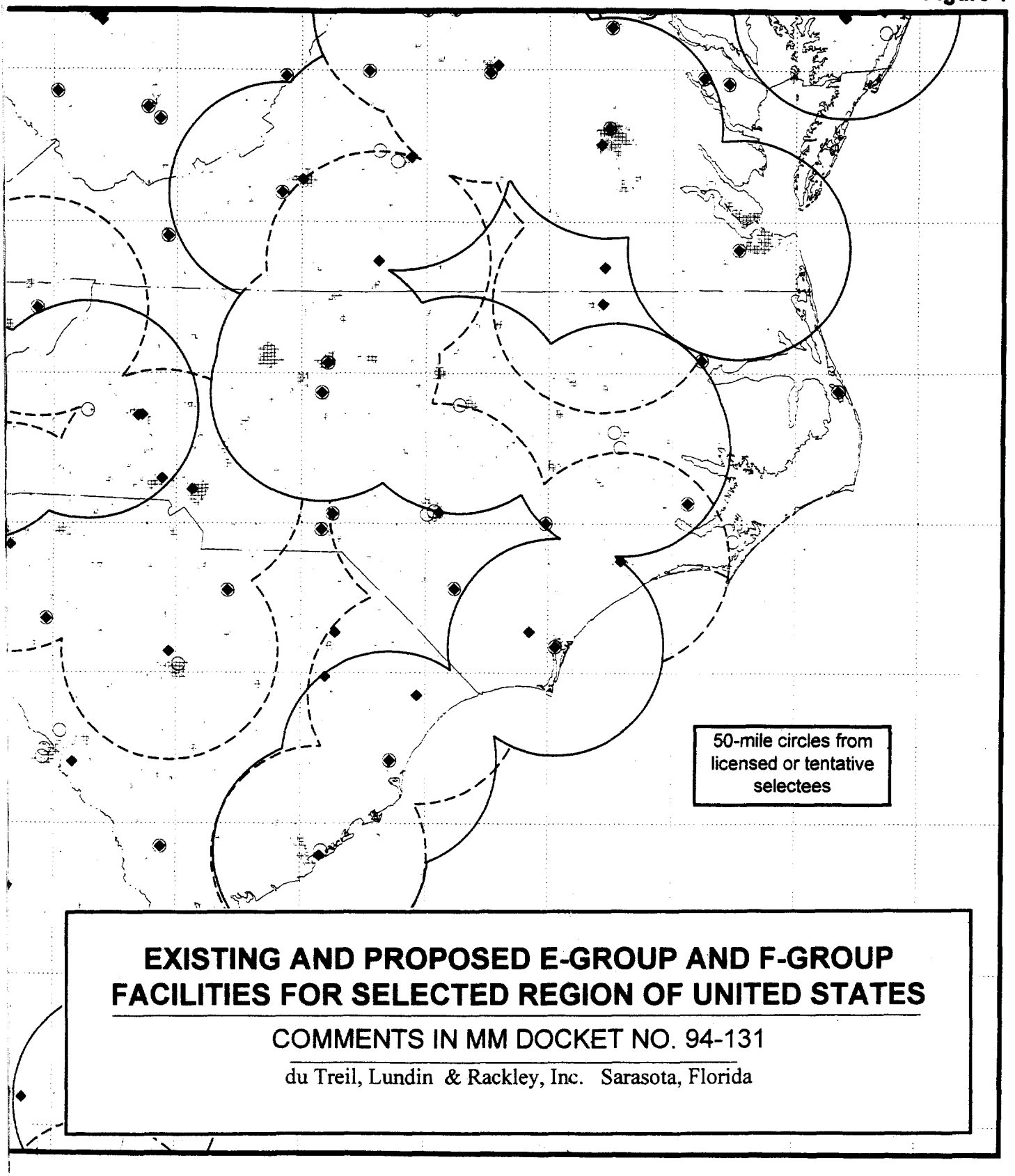
240 N. Washington Blvd., Suite 700
Sarasota, FL 34236
813 366-2611

Figure 1



EXISTING AND PROPOSED E-GROUP AND F-GROUP FACILITIES FOR SELECTED REGION OF UNITED STATES

COMMENTS IN MM DOCKET NO. 94-131

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

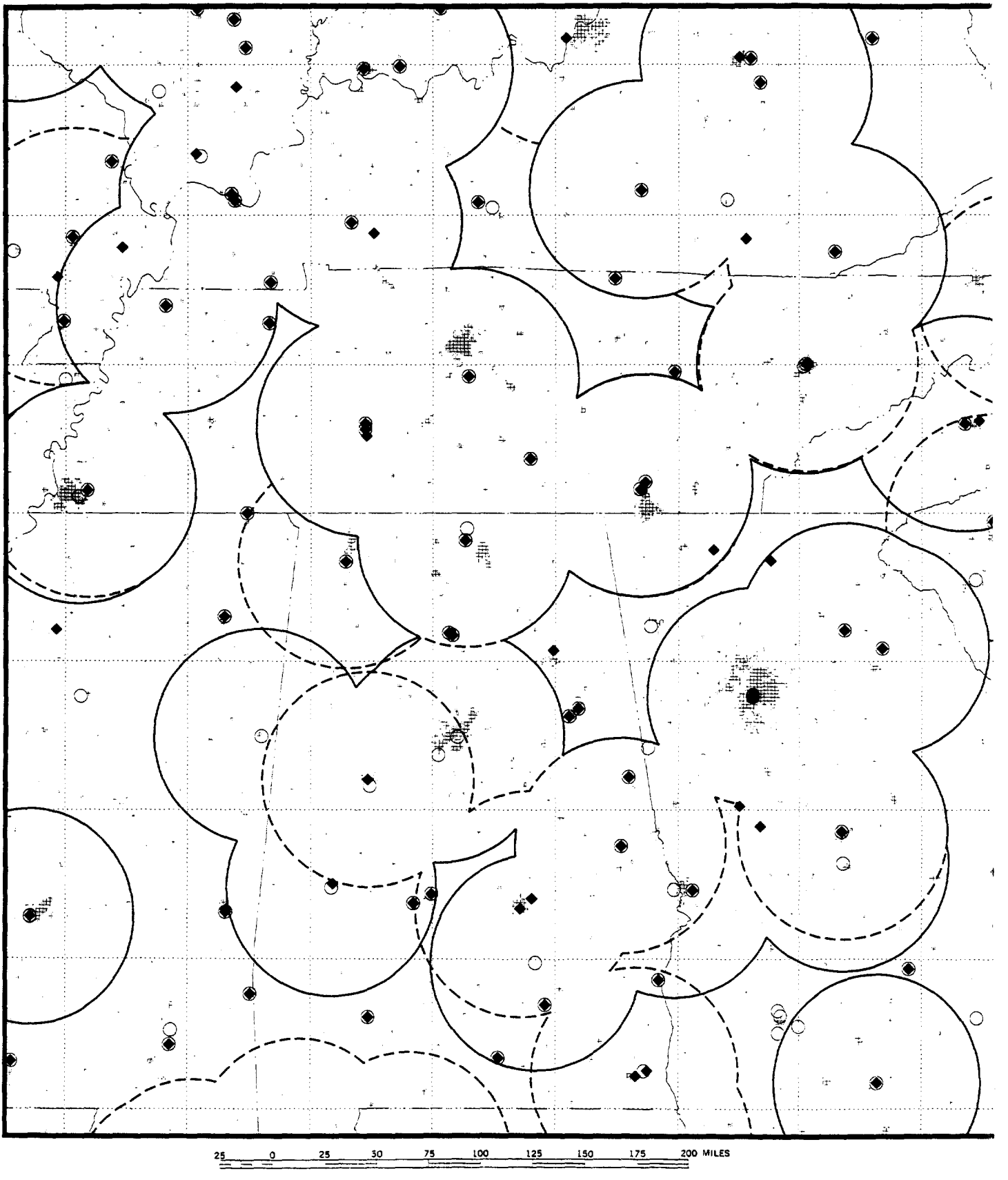

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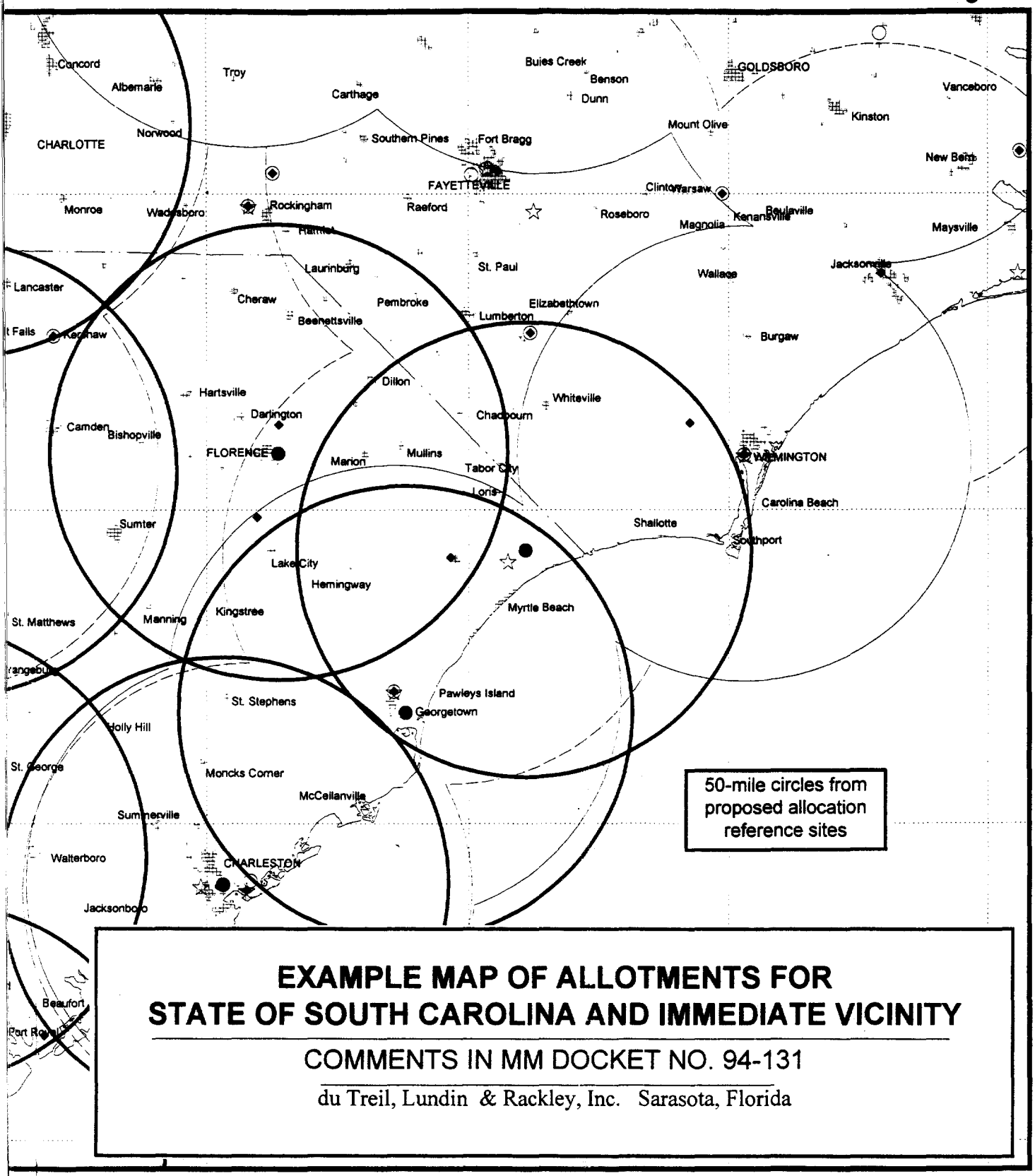
Figure 2

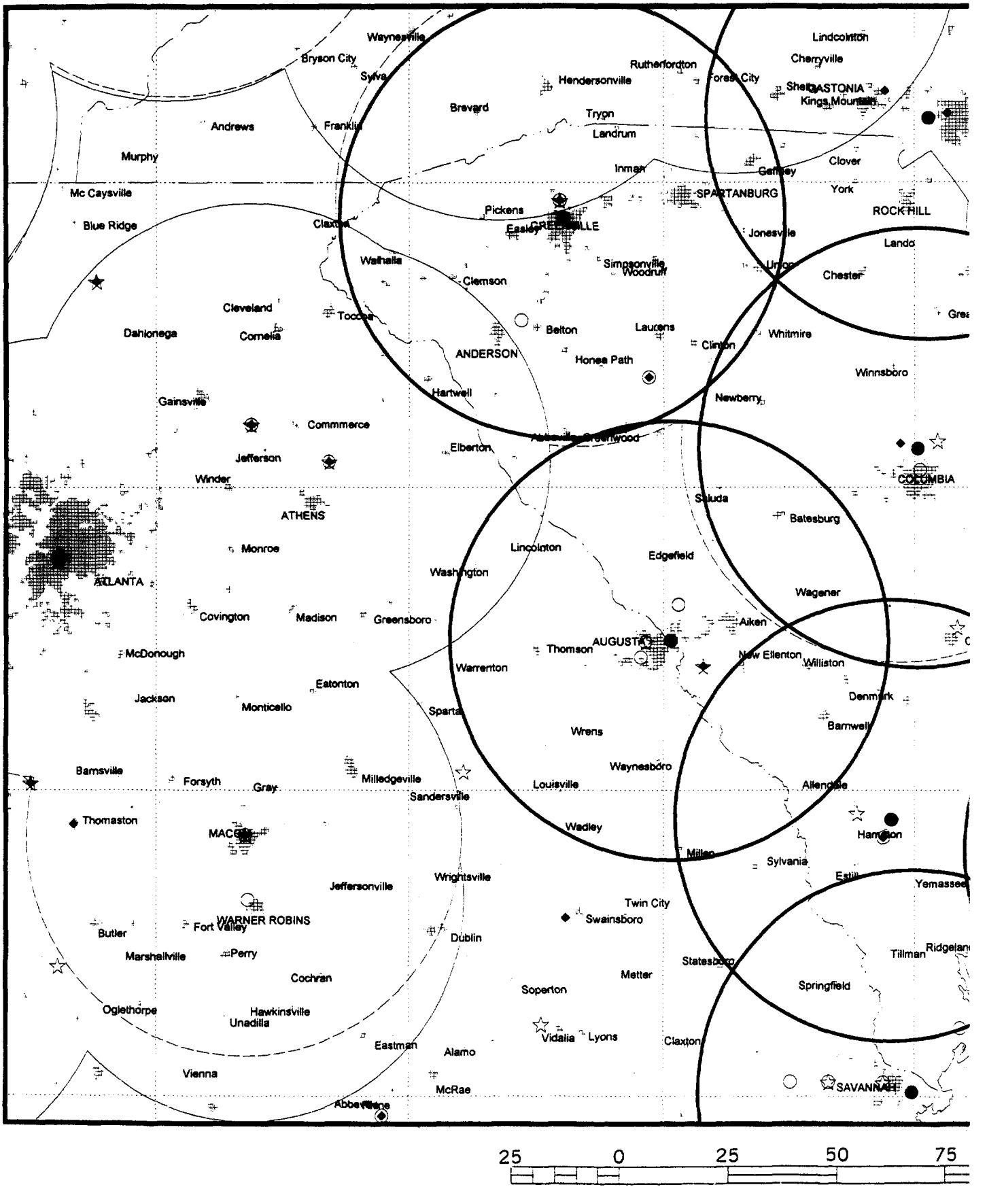


EXAMPLE MAP OF ALLOTMENTS FOR STATE OF SOUTH CAROLINA AND IMMEDIATE VICINITY

COMMENTS IN MM DOCKET NO. 94-131

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

100 125 150 175 200 MILES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Bryson City
Sylva
Andrews
Franklin
Murphy
Mc Caysville
Blue Ridge
Brevard
Hendersonville
Rutherfordton
Forest City
Lincolnton
Cherryville
Shelby
GASTONIA
Kings Mountain
Tryon
Landrum
Inman
Clover
Gaffney
York
SPARTANBURG
ROCK HILL
Pickens
Easley
GREENVILLE
Jonesville
Lando
Walhalla
Clemson
Simpsonville
Woodruff
Union
Chester
Cleveland
Toccoa
Dahlonega
Cornelia
Belton
Laurens
Whitmire
Clinton
ANDERSON
Honea Path
Winnsboro
Hartwell
Newberry
Gainsville
Commmerce
Elberton
Abbeville
Greenwood
Jefferson
Winder
COLUMBIA
Saluda
ATHENS
Batesburg
Monroe
Lincolnton
Edgefield
Washington
ATLANTA
Wagener
Covington
Madison
Greensboro
Aiken
AUGUSTA
Thomson
New Ellenton
Williston
McDonough
Warrenton
Eatonton
Denmark
Jackson
Monticello
Sparta
Barnwell
Wrens
Barnsville
Waynesboro
Forsyth
Gray
Milledgeville
Louisville
Allendale
Sandersville
Thomaston
Wadley
Hampton
MACON
Millen
Sylvania
Wrightsville
Jeffersonville
Twin City
Swainsboro
WARNER ROBINS
Fort Valley
Butler
Dublin
Tillman
Marshallville
Perry
Statesboro
Metter
Cochran
Springfield
Soperton
Oglethorpe
Hawkinsville
Unadilla
Vidalia
Lyons
Claxton
Eastman
Alamo
Vienna
McRae
SAVANNAH
Abbeville
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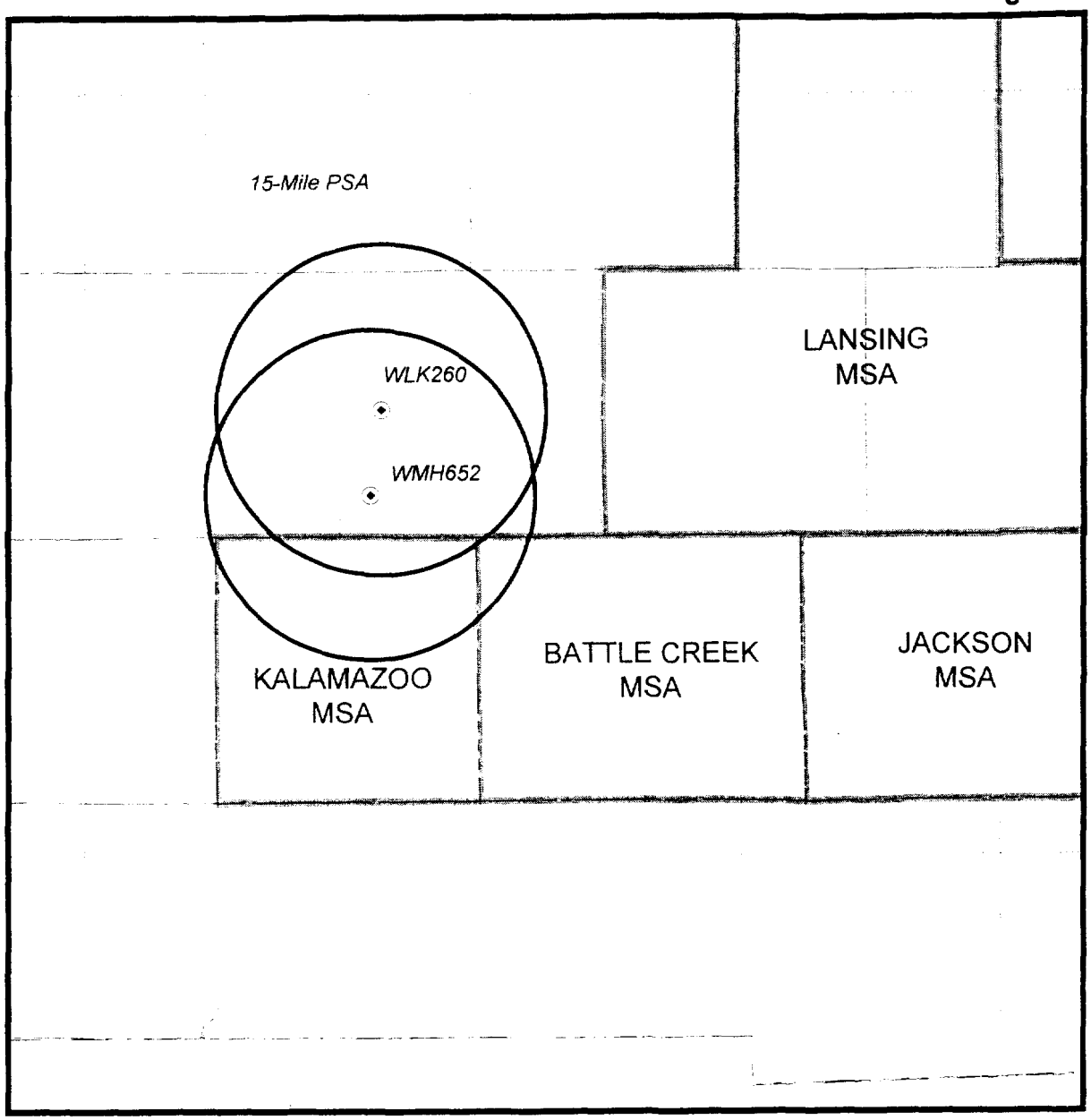
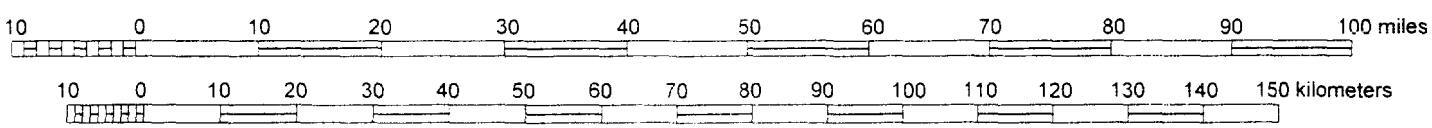
25
50
75

Figure 3





EXISTING SITUATION FOR F-GROUP IN KALAMAZOO AND BATTLE CREEK, MI MSA'S

COMMENTS IN MM DOCKET NO. 94-131

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION

RADIO STATION AUTHORIZATION

LICENSE

CALL SIGN - WLK260

MULTI-POINT TELEVISION DISTRIBUTORS, INC.
PHILIP C. MERRILL
3312 GARRISON STREET
SAN DIEGO, CA 92106

MULTIPOINT DISTRIBUTION SERVICE

SUBJECT TO THE PROVISIONS OF THE COMMUNICATIONS ACT OF 1934, SUBSEQUENT ACTS, TREATIES, AND ALL REGULATIONS HERETOFORE OR HEREAFTER MADE THEREUNDER, AND FURTHER SUBJECT TO THE CONDITIONS SET FORTH IN THIS LICENSE, INCLUDING THOSE CONTAINED ON THE REVERSE HEREOF, AUTHORITY IS HEREBY GRANTED TO USE AND OPERATE THE RADIO FACILITIES HEREINAFTER DESCRIBED:

FILE NO. 50128-CM-L-94
LICENSE EXPIRATION DATE - May 01, 2001
GRANT DATE - Mar 02, 1994

STATION LOCATION - MULLEN AND NORRIS RD. - ORANGEVILLE - (BARRY) MI

SERVICE AREA - BATTLE CREEK MI

LATITUDE 42 34 15 N. - LONGITUDE 085 28 11 W. CONTROL POINT - LOCAL

GROUND ELEVATION 989 FT. (301.4 meters) STRUCTURE HEIGHT 967 FT. ABOVE GROUND (294.7 meters)

TOTAL HEIGHT 1956 FT. AMSL (596.2 meters)

FREQUENCY & POLARIZATION	TRANSMITTER INFORMATION NO.	MANUFACTURER	TYPE	POWER OUTPUT WATTS	EMISSION DESIGNATOR	ANTENNA INFORMATION C/L HT. AZIMUTH
2602-2608V MHZ	(04)	ELECTRONICS MISSILES & COMMUNICATIONS	TTS-10GA	10.000000	5M75 C3F	300 FT.(91.4 meters)
2614-2620V MHZ				1.000000	250K F3E	
2626-2632V MHZ						
2638-2644V MHZ						

VIDEO CARRIERS ARE 2603.25, 2615.25, 2627.25 & 2639.25 MHZ. 5M75 C3F EMISSION DESIGNATOR
AUDIO CARRIERS ARE 2607.75, 2619.75, 2631.75 & 2643.75 MHZ. 250K f3E EMISSION DESIGNATOR
AZIMUTH V LOBE 160.0 DEG. WITH 0.40 DEG. TILT

ANTENNA MANUFACTURER AND TYPE - ANDREW CORP. 62351

LINE LOSS FROM TRANSMITTER TO ANTENNA IS 9 DB.

FCC FORM 715-OBSTRUCTION MARKINGS REQUIRED IN ACCORDANCE WITH PARAGRAPHS 1, 3, 7, 16 & 21.

THIS AUTHORIZATION IS GRANTED SUBJECT TO THE CONDITION THAT LICENSEE PROVIDE SERVICE AS A NON-COMMON CARRIER.

Construction Permit being covered by this license: 9569-CM- P-83
Printed at date and time shown: Thu Feb 24 1994 08:54:37

FCC Form 488

Figure 4

UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION

RADIO STATION AUTHORIZATION

LICENSE

CALL SIGN - WMH652

MWTV, INC.

3401 E. CHOLLA STREET
PHOENIX, AZ 85028

MULTIPOINT DISTRIBUTION SERVICE

SUBJECT TO THE PROVISIONS OF THE COMMUNICATIONS ACT OF 1934, SUBSEQUENT ACTS, TREATIES, AND ALL REGULATIONS HERETOFORE OR HEREAFTER MADE THEREUNDER, AND FURTHER SUBJECT TO THE CONDITIONS SET FORTH IN THIS LICENSE, INCLUDING THOSE CONTAINED ON THE REVERSE HEREOF, AUTHORITY IS HEREBY GRANTED TO USE AND OPERATE THE RADIO FACILITIES HEREINAFTER DESCRIBED:

FILE NO. 50579-CM-L-94
LICENSE EXPIRATION DATE - May 01, 2001
GRANT DATE - Jul 20, 1994

STATION LOCATION - NEAR PRAIRIEVILLE - KALAMAZOO - (BARRY) MI

SERVICE AREA - KALAMAZOO MI

LATITUDE 42 28 32 N. - LONGITUDE 085 29 22 W. CONTROL POINT LOCAL

GROUND ELEVATION 1010 FT. (307.8 meters) STRUCTURE HEIGHT 539 FT. ABOVE GROUND (164.3 meters)

TOTAL HEIGHT 1549 FT. AMSL (472.1 meters)

FREQUENCY & POLARIZATION	TRANSMITTER INFORMATION NO. MANUFACTURER	TYPE	POWER OUTPUT WATTS	EMISSION DESIGNATOR	ANTENNA INFORMATION C/L HT. AZIMUTH
2602-2608V MHZ	(04) ELECTRONICS MISSILES & COMMUNICATIONS	TTS-10F	10.000000	5M75 C3F	286 FT. OMNIDIRECTIONAL (87.2 meters)
2614-2620V MHZ 2626-2632V MHZ 2638-2644V MHZ			1.000000	250K F3E	

VIDEO CARRIERS ARE 2603.25, 2615.25, 2627.25 & 2639.25 MHZ. 5M75 C3F EMISSION DESIGNATOR
AUDIO CARRIERS ARE 2607.75, 2619.75, 2631.75 & 2643.75 MHZ. 250K f3E EMISSION DESIGNATOR

ANTENNA MANUFACTURER AND TYPE - ANDREW CORP. HMD12VO LINE LOSS FROM TRANSMITTER TO ANTENNA IS 9 DB.

FCC FORM 715-OBSTRUCTION MARKINGS REQUIRED IN ACCORDANCE WITH PARAGRAPHS 1, 3, 4, 13 & 21.

THIS AUTHORIZATION IS GRANTED SUBJECT TO THE CONDITION THAT LICENSEE PROVIDE SERVICE AS A COMMON CARRIER.

Construction Permit being covered by this license: 10321-CM- P-83
Engineer-in-Charge: AL
Printed at date and time shown: Fri Jul 22 1994 12:00:08

FCC Form 488

Figure 5